



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Masaki Yoda, et al.

Group Art Unit: 1797

Application No. 10/561,842

Examiner: LATOSHA HINES

Filing Date: December 22, 2005

For: POLYETHYLENE WAX, LOST WAX COMPOSITION FOR PRECISION CASTING
CONTAINING THE SAME, AND METHOD FOR FORMING MODEL FOR
PRECISION CASTING

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

DECLARATION UNDER 37 CFR 1.132

Sir:

I, Mai KURIHARA, declare and state that:

1. In May, 2007, I was graduated from Ph.D in Fiber and Polymer Science of graduate school in North Carolina State University.

Since June, 2007, I have been employed in MITSUI Chemicals, INC., and assigned to Materials Laboratory and Development Center and concerned with a development of wax since 2008.

2. I am familiar with the invention described in the specification of the above-identified application.

3. I carried out the following Comparative Experiments in order to demonstrate that polyethylene waxes disclosed in TOYODA et al. (US 2003/0171481) don't fulfill the requirements of the present invention.

[Comparative Experiment 1]

A polyethylene wax (WAX a1) was obtained in the same manner as in Production Example a1 of TOYODA. Properties of the WAX a1 were measured in the same manner as in Examples of the present specification. The results are shown in Table 1.

[Comparative Experiment 2]

A polyethylene wax (WAX a3) was obtained in the same manner as in Production Example a3 of TOYODA. Properties of the WAX a3 were measured in the same manner as in Examples of the present specification. The results are shown in Table 1.

Table 1

	WAX a1	WAX a3
$[\eta]$ (dl·g ⁻¹)	0.22	0.22
Mw/Mn	3.2	3.2
Mz/Mw	1.7	1.9
Density (kg·m ⁻³)	920	977
Softening point (°C)	109	135
Penetration hardness (dmm)	2	1
Shrinkage ratio (%)	2.13	6.06

The undersigned declares further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,



Mai KURIHARA

Date: July 28, 2009